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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/819,605	03/29/2001	Tomoyuki Kawasoe	IWA-168-USAP	4189

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EXAMINER

EINSMANN, MARGARET V

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 03/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/819,605

Applicant(s)

KAWASOE ET AL.

Examiner

Margaret Einsmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-4, 6-23, 25-48, 50-73, 75, 76, 78, 79, 81 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-4, 6-23, 25-48, 50-73, 75, 76, 78, 79, 81 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/13/2004.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

All of the objections and rejections of paragraphs 1-6 of the first office action on the merits have been substantially mooted by applicant's amendments and arguments as evidenced by the specification filed 8/13/2004.

Applicant's arguments regarding the 103 rejection of the dependent claims without rejecting claim 20 is persuasive. The rejection of claims 21-57 and 60-81 as being unpatentable over Diaz '426 in view of Abe '318 has been vacated.

New Grounds Of Rejection

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 25-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims are dependent on a canceled claim. Since the limitation of canceled claim 24 has been incorporated into claim 20, the examiner will include them in the rejections where appropriate as if they were dependent on claim 20.

Claims 20-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The definition of the organic solvent in claim 20 is vague and indefinite as it fails to define the metes and bounds of said solvent. Applicant has not defined the characteristics needed for the solvent; additionally, a compound is indefinite for being defined in terms of physical properties alone. The

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examiner suggests a Markush group of solvents. An explanation is needed as to how the complex will be formed between the dye and the metal ion in the hair dye if the solvent does not allow the complex to be formed. These claims are so unclear that they can not be further examined on their merits.

Claims 43 and 60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 43 and 60 are further indefinite for claiming a hair dye fixative according to claim 35 or claim 50 when claims 35 and 60 do not claim a hair dye fixative. Claims 35 and 60 each claim a hair dye.

Claims 2,3,6,10,11,14,18,19,21-23,36-38,45-48,51-53,57-60,63-65,68-72 do not for limit the parent claims. The claims from which these claims depend do not provide antecedent basis for the above claims. For example, claim 1 does not provide basis for the addition of an acid or a silicone. Applicant is requested to amend said claims by the insertion of "further" or "additionally" before "comprises" in the above claims. Since applicant's meaning is clear, there is no rejection or objection applied to the claims regarding this matter.

In Claim 73 the incorrect spelling of "dying" on line two should be replaced with "dyeing."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,5,12, 44,61,62,73 and 75 are rejected under 35 U.S.C. 102(b) as being anticipated by Van Riper et al., US 2,338,745 .

Van Riper et al. disclose compositions comprising a hair dye fixative comprising a multivalent ion capable of forming a complex with an acid dye as claimed in claim 1. He further teaches that said composition can contain an acid. In their preferred embodiment in both patents, ferrous sulfate is used as the hair dye fixative comprising a multivalent ion capable of complex formation with an acid dye. See example 1 on page 1 lines 11 et seq of '745. One half percent solution of ferrous sulfate was applied as a premordant to hair, which was then dyed in a solution comprising an acid dye and acetic acid, an organic acid. This example clearly anticipates claims 1,2,5, 44 and 73.

Patentee clearly states that premordanting may be done with aluminum salts which may be used in an amount of from about 0.25% to about 5%. See page 3 lines 29-43 of '745. This disclosure anticipates claims 12,61,62 and 75.

Claims 1,2,5,12, 44,61,62,76 and 78 are rejected under 35 U.S.C. 102(b) as being anticipated by Van Riper et al., US 2,338,746. Regarding claims 1,2,5,12, 44,61

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and 62, applicant's disclosure is essentially the same as van Riper et al.'745 as applied to the claims above. See example 1 page 1 lines 38 et seq. and page 3 lines 42-56.

Regarding claims 76 and 78, in example 2 patentee teaches the process of claim 76 wherein brown hair is dyed by applying simultaneously a composition containing 1% ferrous sulfate and 2% of the dye mixture. Since he states at page 3 lines 32-56 that aluminum is equivalent to iron in this process, both claims are anticipated.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 79 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Riper, US 2,338,746. Van Riper is relied upon as in the above rejection as teaching a process for coloring hair using a solution comprising a multivalent metal ion, including aluminum ions, which may applied to the hair before or sequentially with a solution of an acid dye. Van Riper does not specifically teach that the mordant (multivalent metal complexing agent) may be applied after the dye. However, he makes this statement at page 4 lines 27 et seq, "The results produced by the process of the invention appear to indicate an unexpected affinity of the hair for the heavy metal salts of the synthetic organic dyestuff. This peculiar affinity of the hair for the heavy metal salts appears to exist independently of whether the salt is formed prior to its application

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to the hair as in example 2 or whether it is formed in the hair..." It would have been obvious to one having skill in the art at the time the invention was made that this statement by Van Riper et al. teaches that the dye-complexing agent composition will be stable when it is made on made on the hair, regardless of whether the complexing agent or the dye is applied first.

Claims 3-4, 6-11, 13-19, 46-48, 50, 52- 60, 64-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Riper et al., US 2,338,745 in view of Diaz et al., US 6,309,426. Van Riper is relied upon as teaching a process for dyeing hair comprising applying a heavy metal salt solution to the hair and then applying an aqueous solution of an acid dye and acetic acid, an organic acid. There is no mention of the addition of alcohols, silicone, thickeners as claimed.

Diaz is applied as teaching that alcohols, thickeners and conditioning agents such as silicone are conventionally added to hair dyeing compositions. See the paragraph bridging columns 22 and 23 for the teaching that organic and inorganic acids are added to affect pH adjustment. Specifically included is the alpha hydroxyl acid lactic acid. See col 25 lines 51-66 for the teaching of thickeners; col 26 lines 13-15 where alcohols such as ethanol, isopropanol etc. are taught as additives; col 32 line 22 for the teaching of silicone additives; col 31 line 62 for the teaching of the addition of benzyl alcohol. Diaz also teaches that hair dyeing compositions may be packages in two compartment kits, which prevents premature mixing of ingredients which need to react on the hair.

It would have been obvious to one having skill in the art at the time the invention was made to add the conventional adjuvants cited above to the compositions of Van Riper et al. because Diaz teaches that they are conventional additives to hair dyeing compositions, and they would be expected to be compatible with the acid dyes and complexing agents of Van Riper because Diaz teaches addition of heavy metal salts including aluminum (see col 29 lines 4-11) as well as acid dyes (see the two acid dye structures in col 21, the third and fourth dyes) to their compositions.

Claims 45, 51 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Riper et al., US 2,338,745 in view of Diaz , US 6,309,426 and Abe et al., US 6,197,318. Van Riper in view of Diaz is relied upon as applied in the above rejection as teaching a process of dyeing hair with a two part composition comprising acid dyes and heavy metal complexing agents. They teach the addition of thickeners but do not teach the specific xyloglucan thickener as claimed in the above claims.

Abe et al. is applied as teaching that xyloglucan is a thickener in aqueous systems comprising compositions which are applied to hair. Examples B9 and D7 teach an acid dyes and xyloglucan in 2.0 and 4.0% by weight of the total composition.

It would have been obvious to one having skill in the art at the time the invention to use xyloglucan as the thickener in the composition and process of Van Riper as modified by Diaz because Abe teaches that it has utility as a thickener in aqueous systems, (col 2 lines 19-21). It is also compatible with acid dyes, as shown by the

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working examples . Example D7 is a hair dye composition comprising several of the same components claimed in the compositions in this application: benzyl alcohol, isopropyl alcohol, citric acid (a hydroxyl acid) and acid dyes. Accordingly, it is not novel or unobvious to use a component for its known function, in this case xyloglucan is a known thickener, and it would be expected to form a product that was at the very least acceptable because it is shown to be compatible with acid dyes and other of applicant's claimed components.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret Einsmann whose telephone number is 571-272-1314. The examiner can normally be reached on 7:00 AM -4:30 PM M-Th and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Monday, March 14, 2005

Margaret Einsmann



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Primary Examiner
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